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# Chesapeake Aquaculture

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# Chesapeake Aquaculture

by Garth Woodruff

A few thousand years ago, while hunting and gathering their way through the Middle East, wandering tribes figured something out. Instead of spending days combing the hedgerows for specific dietary delights and bringing back their harvest alone, if they brought the entire plant or its seed back, it could be cultured in a unified field. Using this same approach, hunting groups began to catch prey live, multiplying it in captivity for future clan needs.

Wanderers were now agriculturists staying put in order to nurture and reap their harvest. Others realized the benefits and pitched camp close by. Cities sprung up around agriculture, and soon we had civilization. Before long, with mechanization, food dependency lifted, leaving some with time to practice art, politics, new trades, or inventions.

Agriculture was the catalyst of culture, cities, and civilization. The most developed 21st-century countries still boast the most developed agricultural practices. Five to six thousand years of advancements later, our region of 1.7 million people has been almost completely dependent on hunting and gathering for our beloved Chesapeake seafood. No surprise Bay aquaculture lagged in growth, as truly all aquaculture has been slow to advance. Unfortunately, with recent growth we've discovered concerns about the product: what's in the feed and resulting meat, and what is it polluting?

Many of us, my wife for example, simply won't buy farm-raised fish. To battle many of these worries, there are innovations such as movable fisheries, where young tuna will start off from the South American west coast in a satellite-navigated cage moving through feeding grounds (waste naturally omitted along the way) to arrive in Asia, grown and ready for sale. This and other creations are to help duplicate 'free range' meat bettering the health of our environment and selves.

What of Bay aquaculture? What of the 1.7 million regional folks who want Bay bounty, jobs, and local heritage? We hear of the struggling blue crabs, diminishing fishing, and a devastated oyster popula-

tion. In response, over about the last 15 years, oyster farms have been on the rise. Oyster farms stand unique from any other farm setting because while most agriculture and aquaculture have to manage harmful byproducts, oyster farms conversely offer clean byproducts. With a population less than one percent from the height in about 1840, corresponding water quality has plummeted. One oyster filters 50 gallons of water a day. Clarity naturally assists Bay grass, producing habitat for other fish and blue crabs.

A typical oyster farm will get a million larvae (seeds) to a gallon. These will attach to a hard surface (preferably old oyster shells) creating spat. A year and a half later, these farms are hauling away up to 40 dump truck loads of grown water cleaners. That's a lot of clean water! Away from farms, oyster preserves are also developing. Many restaurants in our area recycle farm oyster shells for these preserves to act as the hard substrate needed, creating a cycle between the farm-raised and protected. When not being used as the growing medium, reefs are developed with extra shells to mimic the early and natural breakwaters that protected our lush shorelines from seasonal surge.

Habitat is growing after a 150-year decline; new varieties with disease tolerance have been introduced; and Bay reefs are reviving (replacing invasive concrete seawalls). We can be proud to say farms are helping lead much of this. In a world where agriculture typically means introducing a non-native to negatively conform an ecosystem for food, oyster farming is introducing a native to positively change an ecosystem for food. We have oyster farms now, so be civilized; shop local, save the environment, and eat more oysters. ■

**About the Author:** Garth Woodruff was raised on the South River and raced out of Herrington Harbour for more than 10 years. Although he works in Michigan, he still keeps a boat and home in Maryland near family.



■ Photos courtesy of Chesapeake Bay Oyster Company via YouTube